



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,684	01/14/2000	Takenori Idehara	325772014000	7340

7590 10/24/2003
Barry E. Bretschneider
Morrison & Foerster LLP
1650 Tysons Blvd.
Suite 300
McLean, VA 22102

EXAMINER

FOSTER, JUSTIN B

ART UNIT	PAPER NUMBER
----------	--------------

2624

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/482,684

Applicant(s)

IDEHARA, TAKENORI

Examiner

Justin Foster

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muramatsu, *et al.* (5,745,253). Muramatsu discloses, in lines 20-39 of column 17 and figure 17, a method of processing image data comprising the following steps. A first image data, D2 of figure 17, is received. A second image, D2a of figure 17, is obtained by developing the first image data in the binarizer 302. A third image data is obtained by compressing the second image data with the compressor, element 311 of figure 17 described in lines 35-36 of column 17. The volume of the first image data ("precompression data") is compared to the volume of the third image data ("post-compression data"), as described in lines 36-38 of column 17. The image data of the smaller of said two volumes is stored, as described in lines 38-39 of column 17.

2. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by Onodera (6,181,435). Onodera discloses, in lines 18-21 of column 5, the step of receiving page description language data and converting said data into coded raster data. Said coded raster data is a first image data.

Art Unit: 2624

Onodera further discloses, in lines 13-16 of column 6, the step of obtaining a second image data by converting the coded band data into compressed raster data. Onodera further discloses, in lines 27-28 of column 7, the step of transferring the raster data to the printing unit, which inherently leads to the printing on a recording medium of the second image data. Onodera further discloses, in lines 44-46 of column 6, the step of comparing the predicted expansion time of the coded band data, which is a first time required for developing the first image data, with the time necessary for transferring band raster data by the printing unit, which is inherently a second time required for printing with the second image data. Onodera further discloses, in lines 47-54 of column 6, the step of storing the first image data if the first time is shorter than the second time based on the result of said comparison.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maramatsu in view of Yoshinari (J.P.O. 9-193486). With regard to claim 2, Maramatsu discloses the invention as stated in claim 1. Maramatsu does not disclose the method of claim 1 in which the first image data consists of a printer language data and the second image data

Art Unit: 2624

consists of a bitmap data. Yoshinari teaches the method of a printer receiving printer language data and storing either the printer language data or compressed bitmap data depending on the available storage capacity. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the first image data of Maramatsu to be printer language data and the second image data of Maramatsu to be bitmap data. The advantage of this modification would be that a printer would be able to store the maximum amount of received data possible since the received data would be stored in the form of its smallest possible volume.

5. With regard to claim 3, Maramatsu discloses a selector section, element 301 of figure 17, which is inherently a receiver for receiving a first image data. Maramatsu further discloses a binarizer, element 302 of figure 17, which is inherently a generator that develops the first image data. Maramatsu further discloses a compressor, element 311 of figure 17, which is inherently a generator for generating third image data by means of compressing the second image data. Maramatsu further discloses an encode section, element 305 of figure 17, which is inherently a comparator for comparing a volume of the first image data and a volume of the third image data as described in lines 35-39 of column 17. Maramatsu further discloses a code memory, element 306 of figure 17, which is inherently a storage means for storing the image data of the smaller of the two compared volumes and discarding the image data of the larger of the two compared volumes. Maramatsu does not disclose that the first image data consists of a printer language data or that the second image data consists of bitmap data. Yoshinari teaches the method of a printer receiving printer language data and storing either the printer language data or compressed bitmap data depending on the available storage capacity. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the first image data of Maramatsu

to be printer language data and the second image data of Maramatsu to be bitmap data. The advantage of this modification would be that a printer would be able to store the maximum amount of received data possible since the received data would be stored in the form of its smallest possible volume.

6. With regard to claim 5, Maramatsu in view of Yoshinari discloses the invention as stated in claim 3. Maramatsu further discloses, in lines 46-53 of column 17, that the code memory is used to store 1-page segments of image data. Therefore, the comparison of the image data is inherently done page by page. Maramatsu further discloses, in lines 35-39 of column 17, that either the first image data or the third image data will be stored according to the result of the volume comparison.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maramatsu in view of Yoshinari in further view of Fall, *et al.* (5,764,863). Maramatsu in view of Yoshinari discloses the invention as stated in claim 3. The combination does not teach printing multiple copies based on the stored image data. Fall teaches a device wherein a plurality of copies of data are printed by storing the data in the device and printing the second and all subsequent copies based on the stored image data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device resulting from the combination of Maramatsu and Yoshinari to print, in the case of printing a plurality of copies, the second copy and all subsequent copies based on the stored image data.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maramatsu in view of Yoshinari in further view of Kishida (5,995,722). Maramatsu in view of Yoshinari discloses the invention as stated in claim 3. The combination does not teach transmitting image

Art Unit: 2624

data through a network. Kishida teaches, in lines 14-24 of column 6, a transmitter for transmitting image data through a network. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device resulting from the combination of Maramatsu and Yoshinari to include a transmitter for transmitting the stored image data to an external apparatus through a network. This would allow users to easily transmit data to others.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maramatsu in view of Yoshinari in further view of Takeda, *et al.* (5,845,057). Maramatsu in view of Yoshinari discloses the invention as stated in claim 3. The combination does not teach a detector for detecting problems during printing and a transmitter for transmitting the stored image data when said detector detects a problem during printing through a network. Takeda teaches, in lines 29-41 of column 2, an error-detecting portion that detects an error during the printing of a document, and the subsequent transmittance of the document data to another apparatus. Said transmittance inherently means that the device includes a transmitter for performing the transmittance. The multiple apparatuses are connected together via a communication network; see lines 56-57 of column 1. Therefore the image data is transmitted through said network. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device resulting from the combination of Maramatsu and Yoshinari to include a detector for detecting problems during printing, and a transmitter for transmitting the stored image data when said detector detects a problem during printing through a network. The benefit of this modification would be that printing could continue on a different device when an error occurred during printing on a first device.

Art Unit: 2624

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Onodera in view of Morris, *et al.* (6,097,419). Onodera discloses the invention as stated in claim 8. The difference between the method of Onodera and the method of claim 9 is that the first image data and the second image data of Onodera consist of coded raster data and compressed raster data, respectively whereas the first image data and the second image data of the invention as stated in claim 9 consist of a printer language data and a bitmap data respectively. Morris discloses, in lines 43-47 of column 4, the converting of printer language data to bitmap data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the first image data of Onodera to consist of printer language data and the second image data of Onodera to consist of bitmap data. The advantage of this modification would be to enable the data to initially be sent to the printer in the popular printer language format and then, after conversion to bitmap, the image information having a plurality of bits could be quickly transferred to the printer engine.

11. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onodera in view of Kikuchi (5,779,378) in further view of Morris. With regard to claim 10, Onodera discloses an input unit, element 17 of figure 2, which is a receiver for receiving a first image data consisting of coded raster data after conversion from page description language. Onodera further discloses a CPU, element 12 of figure 2, which is inherently a generator for generating a second image data that consists of compressed raster data, see lines 60 of column 4 through 4 of column 5. Onodera further discloses a system bus, element 14 of figure 2, which is equivalent to a transmitter for transmitting the second image data to a printing unit for printing the image data. Onodera further discloses, in lines 44-46 of column 6, the comparison of a first time required for

Art Unit: 2624

developing the first image data and a second time. Onodera further discloses a band memory, element 151 of figure 2, which is a storage means for storing the first image data if the first time is shorter than the second time, see 44-54 of column 6. One difference between the device of Onodera and the device as stated in claim 13 is that Onodera does not disclose a comparator for comparing the first and second time. Kikuchi discloses, in lines 54-58 of column 2, a comparator for comparing a time interval in a printing device. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device of Onodera to include a comparator for comparing the first time to the second time. The advantage of this modification would be to provide the device with an efficient and accurate method of performing the cited comparison. The other difference between the device of Onodera and the claimed device is that the first image data and the second image data of Onodera consist of coded raster data and compressed raster data, respectively whereas the first image data and the second image data of the invention as stated in claim 9 consist of a printer language data and a bitmap data respectively. Morris discloses, in lines 43-47 of column 4, the converting of printer language data to bitmap data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the first image data of Onodera to consist of printer language data and the second image data of Onodera to consist of bitmap data. The advantage of this modification would be to enable the data to initially be sent to the printer in the popular printer language format and then, after conversion to bitmap, the image information having a plurality of bits could be quickly transferred to the printer engine.

12. With regard to claim 11, Onodera in view of Kikuchi in further view of Morris discloses the invention as stated in claim 10. Onodera further discloses, in lines 44-46 of column 6, that

Art Unit: 2624

the second time, which the first time is compared to, is a time necessary for transferring band raster data by the printing I/F unit, which is inherently a time required for printing the image data.

13. With regard to claim 12, Onodera in view of Kikuchi in further view of Morris discloses the invention as stated in claim 10. Onodera further discloses a printing I/F unit, element 17 of figure 2, which is inherently a printing unit for forming the image data based on the second image data.

14. With regard to claim 13, Onodera discloses an input unit, element 17 of figure 2, which is a receiver for receiving a first image data consisting of coded raster data after conversion from page description language. Onodera further discloses a CPU, element 12 of figure 2, which is inherently a generator for generating a second image data that consists of compressed raster data, see lines 60 of column 4 through 4 of column 5. Said CPU also functions as a generator for generating a third image data by means of compressing the second image data, see lines 52-55 of column 6. Onodera further discloses a system bus, element 14 of figure 2, which is equivalent to a transmitter for transmitting the second image data to a printing unit for printing the image data. Onodera further discloses, in lines 44-46 of column 6, the comparison of a first time required for developing the first image data and a second time. Onodera further discloses a band memory, element 151 of figure 2, which is a storage means for storing the first image data if the first time is shorter than the second time and storing the third image data if the first time is longer than the second time, see 44-54 of column 6. One difference between the device of Onodera and the device as stated in claim 13 is that Onodera does not disclose a comparing means for comparing the first and second time. Kikuchi discloses, in lines 54-58 of column 2, a comparator, which is

Art Unit: 2624

a comparing means for comparing a time interval in a printing device. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device of Onodera to include a comparator for comparing the first time to the second time. The advantage of this modification would be to provide the device with an efficient and accurate method of performing the cited comparison. Another difference between the device of Onodera and the claimed device is that the first image data and the second image data of Onodera consist of coded raster data and compressed raster data, respectively whereas the first image data and the second image data of the invention as stated in claim 9 consist of a printer language data and a bitmap data respectively. Morris discloses, in lines 43-47 of column 4, the converting of printer language data to bitmap data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the first image data of Onodera to consist of printer language data and the second image data of Onodera to consist of bitmap data. The advantage of this modification would be to enable the data to initially be sent to the printer in the popular printer language format and then, after conversion to bitmap, the image information having a plurality of bits could be quickly transferred to the printer engine. A final difference between the device of Onodera and the claimed device is that the CPU of Onodera functions as a generator for the second and third image data whereas the claimed invention includes a separate first and second generator for separately generating each of the second and third image data. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the device of Onodera to include a separate generator for generating each of the second and third image data as this provides no advantage over the prior art.

Art Unit: 2624

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Foster whose telephone number is (703)305-1900. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

JF



**DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**